

REGIONAL FARE COORDINATION SYSTEM

CHANGE ORDER NO. 7

CONTRACTOR:

ERG Transit Systems (USA) Inc.

CONTRACT NUMBER:

229944

This Change Order to Contract #229944 ("Change Order") is executed as of 3/29/05 by and between ERG Transit Systems (USA) Inc, a California corporation and wholly owned subsidiary of ERG Limited, an Australian corporation, (hereinafter referred to as the "Contractor") and each of the following seven public transportation agencies (hereinafter referred to individually as an "Agency" or collectively as the "Agencies"):

- 1. Central Puget Sound Regional Transit Authority ("Sound Transit")
- 2. King County ("King County")
- 3. Kitsap County Public Transportation Benefit Area ("Kitsap Transit")
- 4. Pierce County Public Transportation Benefit Area ("Pierce Transit")
- 5. Snohomish County Public Transportation Benefit Area ("Community Transit")
- 6. City of Everett ("Everett")
- 7. State of Washington, acting through the Washington State Department of Transportation, Washington State Ferries Division ("WSF")

Background

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.
- B. Effective September 12, 2003, each of the Agencies and the Contractor approved Change Order No. 1 to add work to develop the Conceptual Design documents for the King County Metro Radio Control Unit.
- C. Effective May 4, 2004, each of the Agencies and the Contractor approved Change Order No. 2 to make a variety of contract clarification corrections.

- D. Effective June 21, 2004, each of the Agencies and the Contractor approved Change Order No. 3 to add work to implement the Windows CE operating system in the Driver Display Unit.
- E. Effective July 12, 2004, each of the Agencies and the Contractor approved Change Order No. 4 to revise the Baseline Project Schedule (CDRL 42) and to revise the design review process.
- F. Effective September 21, 2004, each of the Agencies and the Contractor approved Change Order No. 5 to remove the King County Point of Sale (POS) system integration task from the Contractor's scope of work, and to reduce the Contract Price accordingly.
- G. Effective March 4, 2005, each of the Agencies and the Contractor approved Change Order No. 6 to allow the Contract Administrator to grant waivers of Electromagnetic Compatibility Compliance (EMC) testing for equipment provided by ERG which has received EMC certifications and approvals from third parties.
- H. The Agencies and the Contractor desire to execute this Change Order No. 7 to reduce the Contractor's tasks related to the Community Transit Driver Display Unit 3rd Party contractor integration; to revise associated task descriptions in the Baseline Project Schedule (CDRL 42); and to change the Contract Price accordingly. There are no changes to the Project Schedule Milestone dates as a result of this Change Order.

Agreements

The Agencies and the Contractor hereby agree to the following changes to the Contract:

1.0 Division I Changes

- 1.1 The Agencies and the Contractor hereby agree to Amendment Seven without further execution, a copy of which is attached hereto as "Change Order No. 7 Attachment A."
- 1.2 Exhibit 9 of the Contract entitled "Price Schedule" is hereby amended as follows:
 - 1.2.1 Section V. "Integration and Reporting" is revised to reflect price changes for the DDU-Community Transit Integration and to exercise the Option XVIII.B "DDU-Integration with GFI Farebox" as shown in Change Order No. 7 Attachments B and C attached hereto. Except for the additional compensation set forth in revised Section V, there shall be no increase in the total Contract Price and the Contractor is not entitled to any additional payments as a result of this Change Order No. 7.
 - 1.2.2 Section XVIII. "Optional Items", B. "DDU-Integration with GFI farebox" is revised to show the option is exercised under Change Order No. 7 as shown in Change Order No. 7 Attachment C attached hereto.

2.0 Division II Changes

2.1 Section 6. II – 11.4 entitled "Testing" is amended to read as follows:

11.4.4 Installation Test

Installation Test shall occur any time a new unit of equipment is added on the site or an existing installed unit is exchanged.

Upon verification of proper installation of the equipment, Contractor's hall perform a complete post-installation operational test.

- (a) All functions of installed equipment at each location shall be tested under the supervision of Agency representative(s) to ensure operation of the equipment as specified.
- (b) An Installation Test Plan shall be submitted to the Contract Administrator a minimum of thirty (30) days prior to scheduled Installation Testing, and shall be subject to the approval of the Contract Administrator.
- (c) The Contractor shall inform the Contract Administrator, in writing, of any failures during Installation Testing.
- (d) The Contractor shall notify the affected Agency a minimum of seventy-two (72) hours, excluding weekends and holidays, prior to the scheduling of any Installation Tests at a particular site, and will not conduct any testing without RFCS and relevant Agency representation.
- (e) On thirty-five (35) days prior notice from the Contract Administrator, the Contractor shall provide, on site at Community Transit, a qualified software engineer to test and complete the integration of the DDU application described in 6.III-6.8.4:

3.0 Division III Changes

- 3.1 Community Transit wishes to exercise the integration option as identified in Exhibit 9
 Price Schedule, Section XVIII.B. with certain modifications in scope and price as
 identified herein to provide for the integration of the DDU with the MIU. Community
 Transit will use a MIU to control its onboard GFI farebox, transit signal priority (TSP) and
 destination sign.
- 3.2 Section 6.III 6.0 "Data Exchange Requirements DDU" is amended to read as follows:

6.III-6.6 Data Exchange Requirements – DDU

- (a) The DDU shall contain at a minimum the following interfaces (DR 25) as illustrated in the Figures contained in Sections 6.III-4.1.1 and 4.1.2:
 - i. One (1) J1708 communications interface.
 - ii. One (1) RS232 communications interface for Agency use for controlling other devices.
 - iii. One (1) RS232 communications interface for diagnostic purposes.
 - iv. One (1) Ethernet/high speed serial communications interface.
 - v. One (1) RS485 Communications interface for Agency use for controlling other devices.

- 3.3 Figures III-4.1 "Windows CE LIM Architecture" and III-4.3 "Windows CE FIM Architecture (External Ethernet Hub)" located in Sections 6.III-4.1.1 and 6.III-4.1.2, are replaced by the following:
 - 3.3.1 Figure III-4.3 (CT) "On-Board Architecture for CT Integration" is added in Section 6.III 4.1.2 and is attached hereto as "Change Order No. 7 Attachment D.
 - 3.3.2 Figure III-4.1 (KC) "On-Board LIM Architecture for KC Integration", as will be attached to subsequent change order.
 - 3.3.3 Figure III-4.3 (KC) "On-Board FIM Architecture for KC Integration", as will be attached to subsequent change order.
 - 3.3.4 Figure III-4.3 (KT, PT and ET) "On-Board Architecture for KT, PT and ET Integration", as will be attached to subsequent change order.
- 3.4 Section 6.III 6.8.2 "Electronic Registering Farebox Integration (Option)" is hereby amended to read as follows:

6.8.2 Electronic Registering Farebox Integration (Option)

- (a) The Contractor shall develop an interface from the DDU to GFI registering fareboxes via the MIU. The interface between the DDU and the MIU shall be as agreed between the contractor and McCain Traffic Supply. The interface shall be documented (McCain Interface Specification) by McCain Traffic Supply and supplied to the Contractor by the Contract Administrator.
- (b) The contractor shall develop the hardware, software, and firmware required to provide log-on, log-off, en-route trip change and other messages from the DDU through a RS485 port interface to the MIU.
- (c) Messages shall be sent between the DDU and MIU as detailed within the McCain Interface Specification in order to support the functionality described within the subsequent sections of 6.8.2 and 6.8.4.
- (d) The DDU shall include the capability of providing multiple transmissions/retries of a log-on/log-off/trip change message without acknowledgment. The number of retries shall be a user configurable parameter.
- (e) The DDU shall include the capability of registering an acknowledgment of a message received from the MIU.
- 3.5 Section 6.III 6.8.4 "Integration Requirements DDU/Community Transit Integration" is hereby amended to read as follows:

6.8.4 Community Transit Integration

- (a) The DDU shall include application software to communicate with the McCain Traffic Supply interface board (MIU). The MIU will control the following devices on Community Transit vehicles (DR 103.07):
 - i. Transit signal priority (TSP).

- ii. Destination sign.
- iii. GFI Farebox (Per section 6.8.2).
- (b) Log-on data shall be transmitted to the MIU.
- (c) Starting trip information shall be validated in the DDU and transmitted to the MIU.
- (d) Run list shall be compiled and displayed on the DDU.
- (e) The driver shall be able to select the next trip number, and the DDU shall transfer updated trip data to the MIU.
- (f) Community Transit requires that the following data be stored, on-board, in the RFC system:
 - (i) Current (Prior to the transmission to the destination sign, at which time it should be deleted) and pending destination sign configuration files (for the future transmission to the destination sign, at which time it should be deleted);
 - (ii) Current and pending trip information;
 - (iii) Run list.
- (g) The Agencies shall provide two (2) MIUs and the software interface specifications to the Contractor at its office in Seattle, Washington in sufficient time to permit the Contractor to accomplish the work in accordance with the Baseline Project Schedule (CDRL 42). The MIUs so provided shall be 80% to 90% fully developed, capable of controlling the GFI farebox, the TSP and the destination sign and capable of integrating with the DDU. The MIU shall further contain a test mode capable of returning appropriate information to the DDU on receipt of messages from the DDU.

4.0 Other Terms and Conditions

Except as expressly amended by this Change Order, the Contract remains in full force and effect. All other provisions of the Contract not referenced in this Change Order No. 7 shall remain in effect unless modified in other executed Amendments and Change Orders.

Central Puget Sound Regional Transit Authority	City of Everett
By:	Ву:
Its: Date:	Its:
King County	Kitsap County Public Transportation Benefit Area
By:	
Its: Date:	
Pierce County Public Transportation Benefit Area	Snohomish County Public Transportation Benefit Area
Ву:	Ву:
Its:	
Washington State Ferries, Washington	
State Department of Transportation	

By: Its: Date:	
Central Puget Sound Regional Transit Authority	City of Everett
By: 102 M Earl Its: 050 Date: 3-29.05	By: Its: Date:
King County	Kitsap County Public Transportation Benefit Area
By: Its: Date:	By: Its: Date:
Pierce County Public Transportation Benefit Area	Snohomish County Public Transportation Benefit Area
By: Its: Date:	By:
Washington State Ferries, Washington State Department of Transportation	
By: Its: Date:	

Its: _____ **City of Everett Central Puget Sound Regional Transit** Authority By: _____ Date: **King County Kitsap County Public Transportation** Benefit Area By: _____ Its: _____ Date: 3/14/05 Date: Pierce County Public Transportation **Snohomish County Public** Benefit Area **Transportation Benefit Area**

Date:

Washington State Ferries, Washington State Department of Transportation

ERG Transit Systems (USA) Inc.

Date: _____

y:s:
V:

Date:	
Central Puget Sound Regional Transit Authority	City of Everett
By: Its: Date:	By: Its: Date:
King County	Kitsap County Public Transportation Benefit Area
By: Its: Date:	By: Its: Date:
Pierce County Public Transportation Benefit Area	Snohomish County Public Transportation Benefit Area
By: Its: Date: 3-14-05	By: Its: Date:
Washington State Ferries, Washington State Department of Transportation	
By: Its: Date:	

Date:	
Central Puget Sound Regional Transit Authority	City of Everett
By: Its: Date:	By: Its: Date:
King County	Kitsap County Public Transportation Benefit Area
By: Its: Date:	By: Its: Date:
Pierce County Public Transportation Benefit Area	Snohomish County Public Transportation Benefit Area
By: Its: Date:	By: Its: Date:
Washington State Ferries, Washington State Department of Transportation	
By: W. Michael Orderro Its: Executive Director Date: March 21, 2005	

Transportation Benefit Area

Its:

Date:

Washington State Ferries, Washington State Department of Transportation

Benefit Area

ERG Transit Systems (USA) Inc.

Date:

ERG Transit Systems (USA) Inc.

Its: **City of Everett Central Puget Sound Regional Transit** Authority Its: _____ Date: **Kitsap County Public Transportation King County Benefit Area** Its: / Service Development Di. Date: 3/14/05 Date: **Pierce County Public Transportation Snohomish County Public Transportation Benefit Area** Benefit Area By: _____ By: _____ Its: _____ Date: _____ Date: Washington State Ferries, Washington State Department of Transportation By: _____ Its: _____

ERG Transit Systems (USA) Inc. Its: _____ Date: **City of Everett Central Puget Sound Regional Transit** Authority Its: _____ Its: _____ Date: Date: **King County Kitsap County Public Transportation** Benefit Area Ву: _____ Date: **Snohomish County Public** Pierce County Public Transportation **Transportation Benefit Area** Benefit Area By: Joyl. M why us Its: Date: 3/14/05 By: _____ Its: _____ Date: Washington State Ferries, Washington

State Department of Transportation

Change Order No. 7 - Attachment A

Amendment Seven to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System

This Amendment Seven to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System is incorporated into Contract Change Order No. 7.

Recitals

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.
- B. The Contract identifies in 3.I-28, certain events and circumstances which constitute "Agency Caused Delays" and which, in certain circumstances, will entitle the Contractor to an equitable adjustment in the Contract price or schedule.
- C. Community Transit, in Change Order No. 7 to the Contract, exercises a design option requiring the Contractor to interface its Driver Display Unit (DDU) to a McCain Interface Unit ("MIU") to be provided by the Agencies.
- D. The Agencies and the Contractor desire to enter into this Amendment Seven to make the failure of timely delivery of the MIU and its interface protocols an instance of Agency Caused Delay and to establish the payment provisions for the Contractor's work in establishing this interface.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and in the Contract, the sufficiency of which is hereby acknowledged, each Agency and the Contractor hereby agree to amend the Contract as follows:

Section 1.0

Community Transit (CT) wishes to exercise the integration option as identified in Exhibit 9 "Price Schedule", Section XVIII.B "DDU-Integration with GFI farebox" with certain modifications in scope and price as identified herein and in Change Order No. 7 to provide for the integration of the DDU with the McCain Interface Unit (MIU). Community Transit will use a MIU to control its onboard GFI farebox, transit signal priority (TSP) and destination sign.

Section 2.0

The Parties agree that the tasks listed below will be incorporated into the revised Baseline Project Schedule (CDRL 42) that will be updated as part of a subsequent Change Order. This subsequent Change Order shall include the schedule for completion of the tasks related to the CT DDU Integration and shall coordinate with all other DDU tasks.

- a) Integration point 1: (Date tbd) McCain provide first release of McCain unit
- b) Integration point 2: (Date tbd) McCain provide second release of McCain unit (based upon completion of remaining functionality and resolution of issues identified in release 1)

- c) Integration point 3: (Date tbd) McCain provide third (and final) release of McCain unit (based upon resolution of issues identified in release 2)
- d) Integration point 4: (Date tbd) ERG support on-site integration at CT premises, using 2 vehicles, along with McCain and CT staff as required

Section 3.0

Section 3.I-28.1 of the Contract is hereby amended to read as follows:

28.1 Agency Caused Delays are delays that affect a Critical Path as defined in the approved Baseline Project Schedule and arise from the following matters and no others: (a) a suspension order pursuant to Section 3.I-30 not caused by the actions or inactions of the Contractor, (b) failure or inability of the Agencies to obtain the permits it agrees in its sole discretion to obtain, (c) failure of the Agencies to provide availability of Transit/Ferry facilities according to the schedule for such availability provided by the Agencies, (d) failure of the Agencies to provide operation rules in a timely manner, (e) unavoidable delay caused by governmental action which is beyond the control of and could not have been reasonably anticipated by the Contractor, (f) failure of the Agencies to comply with Section 2.1–2.3, (g) failure of the Agencies to deliver hardware and interface specifications associated with the integration to the McCain Interface Unit ("MIU"),or (h) any additional Work requested by the Agencies. Any court order to suspend Work shall not be considered an Agency Caused Delay (although it may qualify as a Force Majeure Event) despite the fact that the Agencies may specifically direct the Contractor to comply with the court order.

Section 4.0

The Contractor has been paid the milestone payment contemplated in 3.I-76.3.3a which amount was based, in part, on the lump sum amounts contained in Exhibit 9, Section V of the Contract. These lump sum amounts are revised by this Change Order No. 7 resulting in an overpayment by the Agencies of \$2,374. The Agencies are to be furnished a credit in this amount with the submission of the Contractor's next Milestone Payment invoice for Final Design Review Acceptance (3.I-76.3.3b).

Section 5.0

All other provisions of the Contract not referenced in this Amendment Seven shall remain in effect.

Change Order No. 7 - Attachment B

Exhibit 9 Price Schedule

V. INTEGRATION AND REPORTING

LUMP SUM COST

1. INTEGRATION COSTS

A. (deleted per Change Order No. 5)	
B. Back Office Data integration with existing Agency system(s), including: Back Office client application and hardware	\$246,668
C. RCU Integration	\$86,500
D. Inventory System Software (CARM)	\$72,319
E. DDU – Community Transit Integration (6.III-6.8.4)	\$70,959
F. DDU-Integration with GFI Farebox (6.III-6.8.2)	\$26,738
TOTAL (A)	\$ 503,184

2. REPORTS

A.	Standard Reports	(as listed in Section 6.III-13)	\$563,812
		TOTAL (B)	\$563,812

302 (A	GRAND TOTAL (A + B):	AWY DIE	\$ 1,066,996

Change Order No. 7 - Attachment C

Exhibit 9 Price Schedule

XVIII. OPTIONAL ITEMS

A. REAR DOOR READERS

Development Cost:

\$14,464 lump sum

Rear Door Readers	1,500 or less	1,501-3,000	Over 3,000
Price per unit	\$721	\$687	\$680

B. DDU – Integration with GFI farebox (Exercised in Change Order No. 7)

\$26,738 lump sum

C. TEST BED

Cost savings if Agencies provide space for testbed.

(\$32,000) lump sum

D. PROVISION OF OFFICE SPACE

Cost savings if Agencies provide office space and facilities for its Project Management staff.

(\$183,528) lump sum

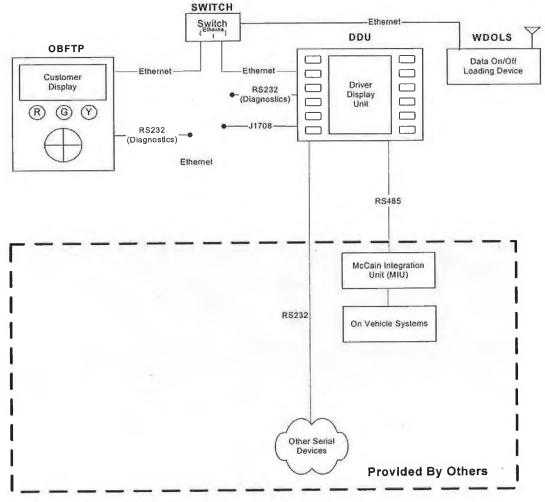
E. ORACLE LICENSING

Cost savings if the Oracle Enterprise 8I license is already provided for each Back Office Computer (BOC).

(\$20,492) per BOC

Figure III - 4.3 (CT)

On-Board Architecture for CT Integration



Note: All parties agree that this Figure does not show the LonWorks port. The parties have agreed to eliminate the LonWorks port and that change will be executed in a subsequent Change Order.